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# **BALD EAGLES IN WISCONSIN**

## **A Management Guide for Landowners**

**Department of Natural Resources  
Bureau of Endangered Resources**



Adapted with permission from:

**"Bald Eagles in the Chesapeake:  
A Management Guide for Landowners"  
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# **INTRODUCTION**

Wisconsin's abundant lakes and streams provide habitat for a large population of breeding and wintering Bald Eagles. These eagles are a significant natural resource. Eagles are sensitive environmental indicators, and their management is an important wildlife conservation effort.

## **You can help the Bald Eagle.**

As a private landowner whose property contains Bald Eagle nesting and roosting habitat, you have the privilege and opportunity to enhance Bald Eagle habitat in Wisconsin. This guide will help you learn more about the Bald Eagle and will suggest ways your property can be managed for both your needs and the needs of the Bald Eagle.

## **Why do Bald Eagles need help?**

A drastic decline in nesting Bald Eagles and the young they produced took place throughout the country from the 1950s into the early 1970s.

This decline was caused by habitat destruction and a build-up of DDE, a form of the pesticide DDT, in the fish and birds the eagles feed on. As they consumed this contaminated prey, DDE accumulated in the eagles and caused them to lay thin-shelled eggs that would break before hatching. Another pesticide, dieldrin, also built up in the eagles' bodies and caused some to die.

Following the 1972 ban on the use of DDT and the ban on the use of dieldrin, the number of nesting pairs of Bald Eagles and the young they produce in Wisconsin have increased steadily. Bald Eagles now need your help to protect their dwindling nesting, roosting, and feeding habitat so that the comeback of this threatened species will continue. Guard against and limit the use of insecticide and pesticide sprays and fish toxicants that may affect the birds.

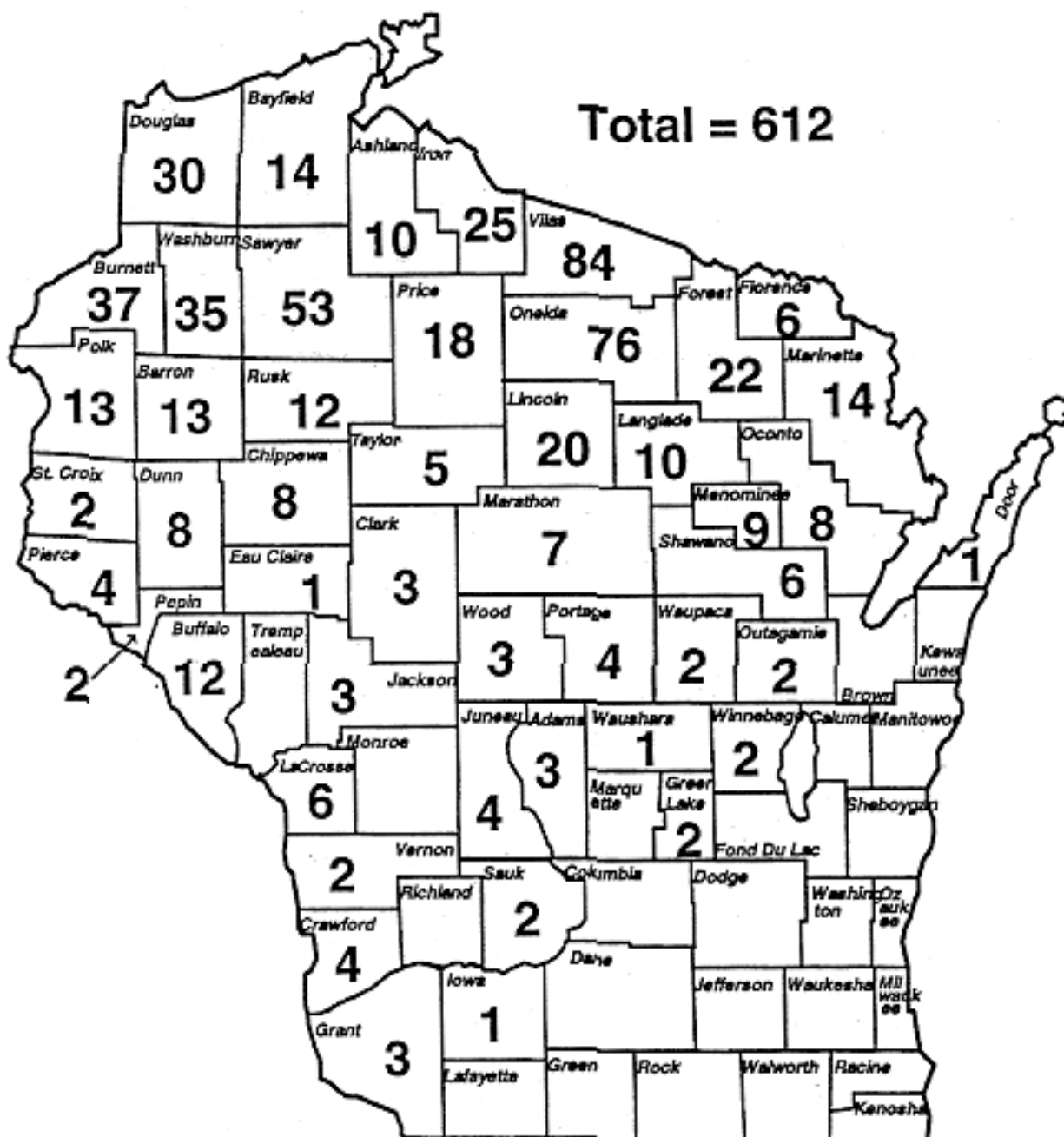
## **How many Bald Eagles are now in Wisconsin?**

Bald Eagles are found here in all seasons. Wisconsin supports a substantial portion of our nation's breeding Bald Eagles-the third largest breeding population in the 48 contiguous states. In the spring of 1995, 583 pairs of Bald Eagles nested in the state.

Eagles from northern breeding populations migrate to our area, and adult eagles from our state remain here much of the year. In winter, eagles congregate near open water, especially at dams and power plants on the Mississippi and Wisconsin Rivers. Hundreds are counted on winter surveys.



# Occupied Bald Eagle Territories 1996

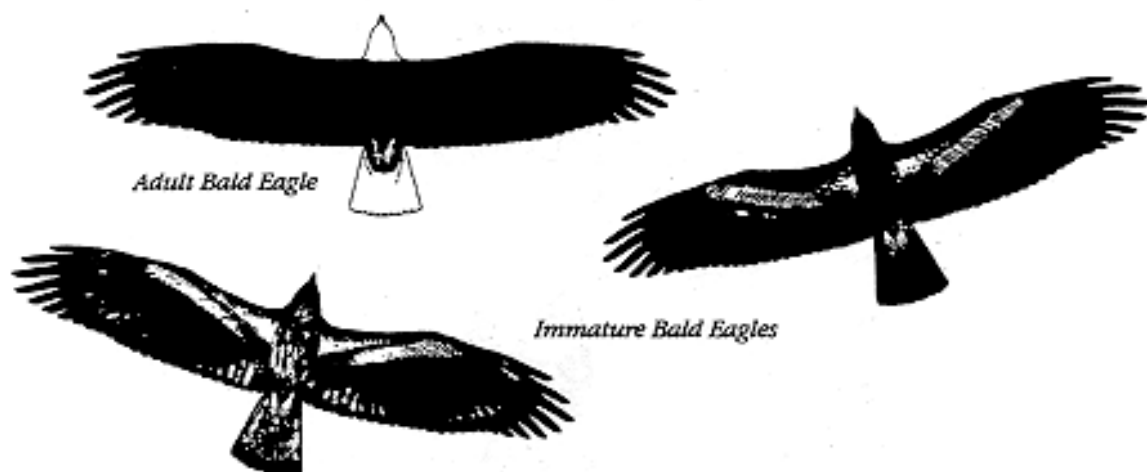


Occupied eagle territories are those with a repaired nest.

## NATURAL HISTORY

### What do they look like?

Bald Eagles are large, dark brown birds of prey. Adults have distinctive white heads and tails. Immatures have brown head and tails; variable amounts of white appear on their dark bodies or wings. Bald Eagles acquire their adult plumage at four to five years of age. Bald Eagles in Wisconsin weigh eight to fourteen pounds, with a wingspread of up to seven feet. Bald and Golden Eagles (Golden Eagles are rare in Wisconsin) are the largest birds of prey in the U.S. Eagles have keen vision (four to eight times greater than ours), are swift and agile flyers, and possess powerful beaks and talons. All these features combine to make the eagle a highly successful predator.



### When and where do they nest?

Adult Bald Eagles return to build and repair nests from February to March. One to three eggs are laid in March and April. The eggs hatch about the 1st of May after thirty-five days of incubation. The young eagles remain in the nest eleven to twelve weeks before they take their first flight; the last of the young leave the nest by late July or mid-August. For about two months after their first flight the young still frequently return to the nest site and receive food from their parents.

Bald Eagles build their nests in tall trees that tower above the forest, located close to a river or lake. Nests are usually in white pines, but other tree species are used as well: red pine, yellow birch, maple, and aspen.

The nest is a large mass of sticks about three feet deep and five feet across (one nest in Vilas County is over ten feet deep!), placed near the top of the tree. Some Bald Eagles will use the same nest every year, while others will alternate from year to year among two or three different nests in their breeding territory. Some breeding territories have been used for over fifty years.

## Where do eagles roost?

A roost site is a spot where Bald Eagles perch together in trees when they are inactive -- not feeding or flying. In the winter you might see large groups of eagles gathering at a roost, sometimes during the day but more frequently at night. Eagles will arrive at a night roost just before dusk and leave the roost just after daybreak. Most winter roosts are located along the Wisconsin and Mississippi Rivers.

## What do Bald Eagles eat?

Wisconsin's lakes and streams provide an abundant supply of fish — the favorite food of Bald Eagles. Suckers, bullheads, and northern pike make up most of their diet; but Bald Eagles are resourceful hunters and will also feed on waterfowl, shorebirds, and even turtles. In addition, they occasionally take mammals such as baby muskrats and beavers. In winter, eagles scavenge winterkilled deer and small fish provided by ice fishermen. While hunting their prey, Bald Eagles will perch in trees along the shorelines of rivers, bays, marshes, lakes, and ponds.



# **MANAGING YOUR LAND FOR BALD EAGLES**

## **Why is management necessary?**

For the Bald Eagle population to survive and maintain its recovery, eagles need adequate habitat—places to nest and raise their young, undisturbed feeding areas, and suitable roost sites. But the eagle's habitat is being threatened. The increase in the number of people in rural Wisconsin during the last 30 years has increased the demand for housing, highways, industry, timber, and recreation. This increase in disturbance and loss of habitat will reduce the amount and quality of habitat available for the comeback of the Bald Eagle unless management plans are developed that consider the eagle's needs.

## **Where to begin?**

In the following section we have listed general guidelines for managing your land to protect Bald Eagles. Since each nest, roost, and feeding site has unique qualities, we recommend you contact your local wildlife manager for specific recommendations.

Department of Natural Resources wildlife managers annually conduct an aerial survey of all eagle nests.

## **Management of nest sites.**

### **Protection zones**

Some activities close to a Bald Eagle nest may disturb the eagles when they are building their nests, incubating eggs, and raising their young. Other activities may change the habitat around the nest so that the eagles do not return to the nest the following year. On the following pages are recommendations for establishing Protection Zones around nest sites on your property. Three different Protection Zones are recommended for each nest site, and suggestions for ways you can avoid disturbing the eagles are listed. These Protection Zones should be established for nests currently being used and for alternate nest sites that have been used in the past three years.





### Timber harvest

If timber is harvested on your property, the method used may have an effect on existing eagle habitat and may create or eliminate eagle habitat for the future. It is essential that some of the tallest mature trees, particularly tall white pines, remain standing to provide nest trees for the future. Your state wildlife manager and state forester can work with you to develop a sound management plan.

### Farming

Some pairs of eagles are more tolerant of human activity than others and nest close to agricultural fields and roads. A pair of eagles may become used to a tractor working in a field close to the nest or may tolerate occasional traffic along a nearby lane; however, the eagles may be disturbed during the critical part of the nesting season (March 15 to June 15) if activity changes—cars beginning to stop within sight of the nest or a sudden increase in the amount of activity in the field near the nest.

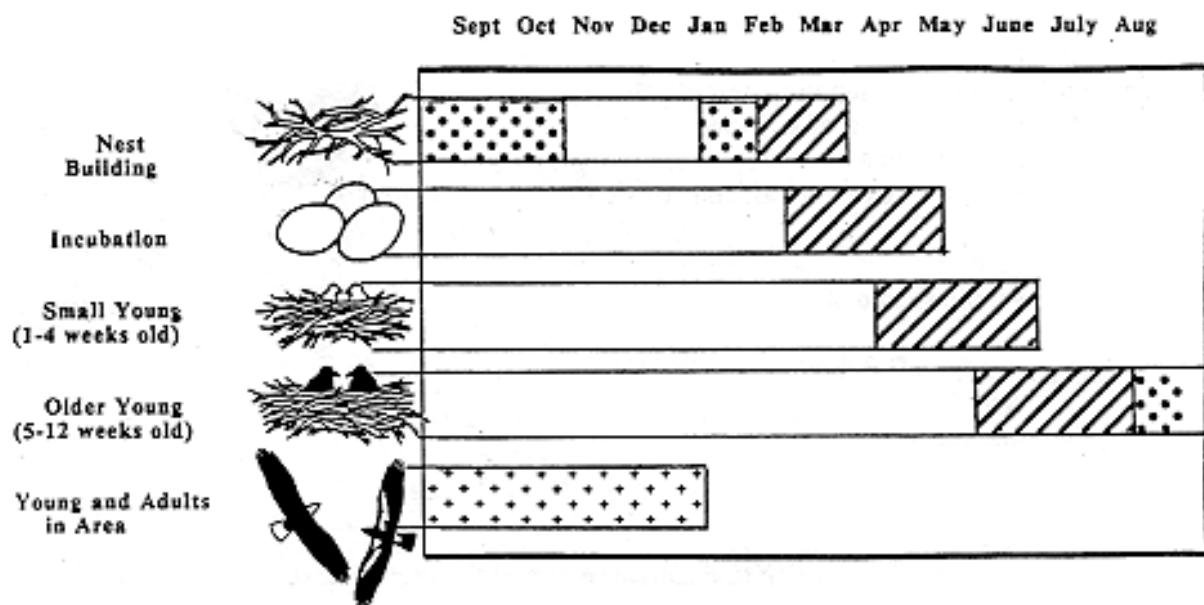
### When eagles build nests close to existing developments

In recent years Wisconsin's breeding population of Bald Eagles has been expanding. Eagle pairs have large territories covering most of a large lake or several small lakes. In some areas all the eagle habitat is already occupied by pairs of nesting eagles. Eagle pairs are highly territorial and do not allow new pairs of eagles to nest in their territory. To find their own territory, these new eagle pairs often choose to build nests very close to human developments. More than one cabin owner in northern Wisconsin has returned to the lakeshore cabin in the spring only to find a pair of eagles nesting in a white pine high above the cabin.

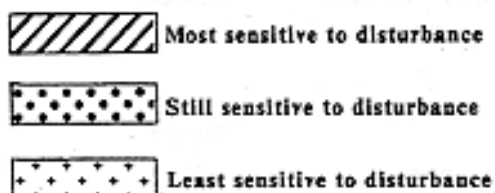
When eagles choose to build their nests close to human developments, use the following recommendations to protect eagle nests. All normal activities can occur. Eagles are most sensitive to disturbance during egg incubation (March 15 to May 1). Eagles that choose to nest close to people usually become accustomed to their landlord's normal activities. Whenever possible, landowners with eagle nests adjacent to their homes should try to avoid new construction during the period April 1st through August 15th.



# THE EAGLE NESTING SEASON



How sensitive are the eagles to disturbance by people?



# PROTECTION ZONES

## **Zone 1 (0 to 330 feet)**

In Zone 1 eagles are most sensitive to disturbance, and the greatest degree of protection is necessary. The boundary of this zone should be a minimum of 330 feet from the nest.

### **Recommendations:**

1. Year-round  
These habitat changes should be prevented:
  - Timber cutting of any kind
  - Land clearing
  - Building, road, or trail construction
2. April 1 to July 15
  - People should stay clear of this zone.
3. July 16 to August 15
  - Activity should be kept to a minimum.



## **Zone 2 (330 feet to 660 feet)**

In Zone 2 the eagles are still sensitive to disturbance during the nesting season (April 1 to July 15) but less likely to be affected at other times of the year. The boundary of this zone should be a minimum of 660 feet from the nest.

### **Recommendations**

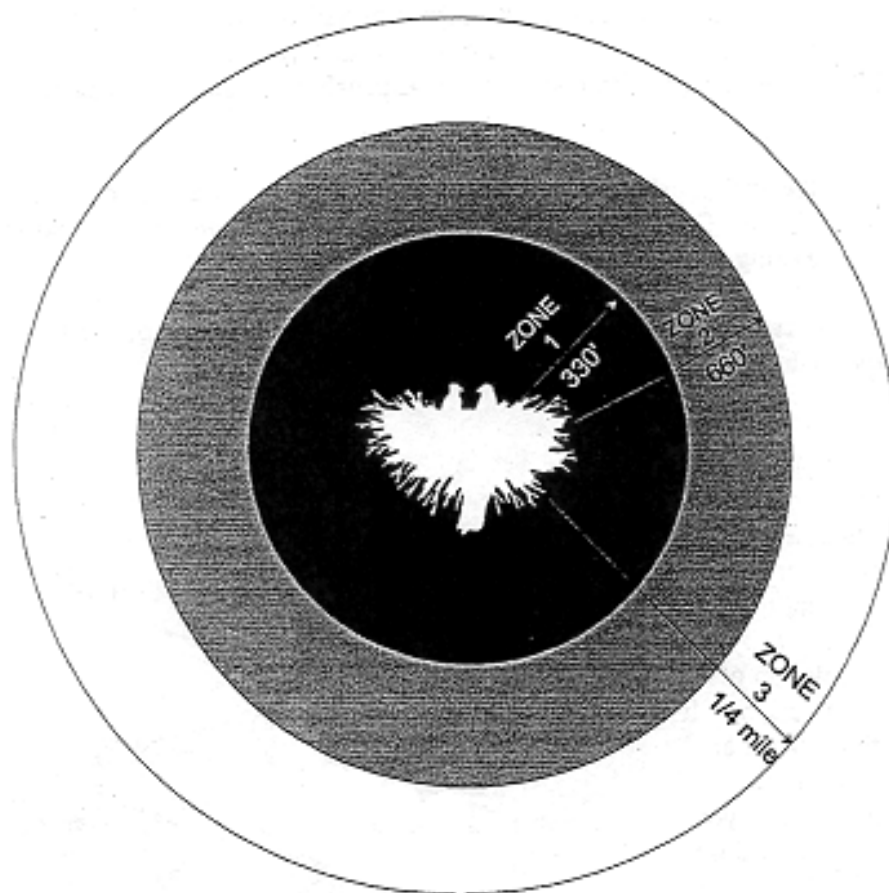
1. Year-round
  - Human activity should be kept to a minimum.
  - Consult a wildlife manager.
2. April 1 to July 15
  - Human activity should be kept to a minimum.
  - Consult a wildlife manager.
3. July 16 to August 15
  - These activities are possible:
    - Hunting
    - Fishing
    - Hiking
    - Farming
4. August 16 to February 15
  - These activities are possible:
    - Timber stand management
    - Road construction and other land management activities.

### Zone 3 (660 feet to 1/4 mile)

Most activities are possible in Zone 3 outside of the breeding season. The management of this zone, however, should include the protection of any Bald Eagle roosts or feeding sites in the area. The boundary of this zone should be a minimum of one-quarter mile from the nest.

#### Recommendations

- Activities in this zone that are within sight of the eagles on the nest may need to be conducted outside the breeding season.
- Consult a wildlife manager.
- If timber cutting occurs, several supercanopy pine trees should be left for future nest and roost sites. Some medium and small-size pines should be left for nest tree replacement as the old mature trees disappear.



### Management of roost and feeding sites.

#### Protection zones

The mature live trees and dead trees necessary for perches and protection from the wind should be maintained in a zone 100 yards wide around each roost. This area should be closed to timber cutting and land clearing. Human activities within sight of the eagles should be restricted within 200 yards of the roost.

## Shoreline

Land within 30 yards of the shoreline should be managed to promote large white pines. As many dead trees as possible should be left standing, and trees with a diameter of 12 inches or greater left for use as perch trees.

## LAWS

In 1940, Congress passed the Bald Eagle Protection Act to protect the Bald Eagle from extinction. Since then several changes have been made in this Act to strengthen the law against "taking" Bald or Golden Eagles or disturbing their nests. The current law, known as the Eagle Protection Act, prohibits anyone from "taking" any Bald Eagles, dead or alive, or any nest, egg, or parts of these birds. The Act defines "taking" as "to pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest, or disturb."

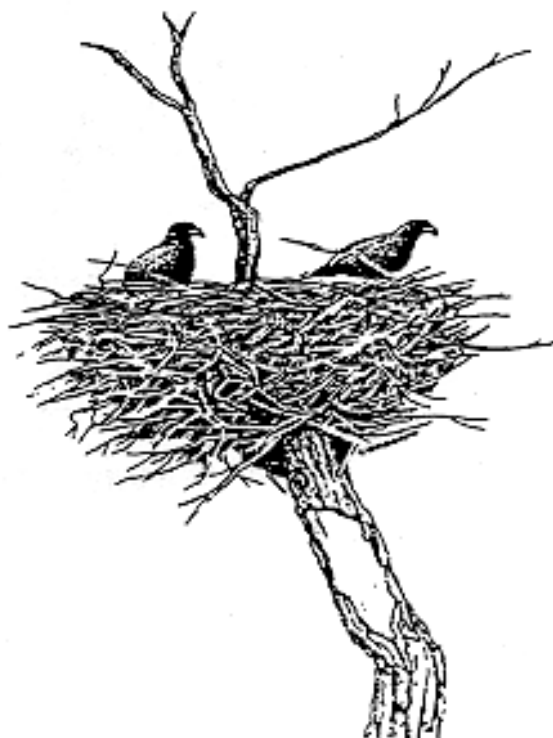
A violation of the Eagle Protection Act can result in fines of \$10,000 to \$20,000 or imprisonment for one to two years, or both. The Bald Eagle is also protected under the Endangered Species Act and the Migratory Bird Treaty Act, both with restrictions and penalties similar to the Eagle Protection Act.

Despite these laws and the stiff penalties for violations, Bald Eagles in the region continue to be shot and some nest trees cut down. Only through the cooperation of landowners in the region can we hope to eliminate the shooting of eagles and the destruction of their nests.

If you find a dead or injured Bald Eagle, or if you want to report a violation of the Eagle Protection Act, please contact your local conservation warden or wildlife manager.

## Compliance

The guidelines and management recommendations presented in this booklet are advisory in nature. Following or disregarding these guidelines does not necessarily show compliance with or violation of these laws or other regulations. If you have any questions about an activity to be conducted in the vicinity of a Bald Eagle nest, you should contact your local wildlife manager.



## WHAT WILL THE FUTURE HOLD?

Whether your property contains woodland, farmland, or wetland—and whether your land is managed for farming, timber harvest, hunting, or wildlife protection—Bald Eagle habitat on your property should be given a high priority in your overall management plan.

With your interest and cooperation, we can ensure that Bald Eagle habitat -- nesting, roosting, and feeding areas—is available now and in the future. We are all hopeful that the Bald Eagle, our nation's symbol, will never again be threatened with extinction.



## FOR MORE INFORMATION

Gerrard, J. M. and G. R. Bortolotti. 1988. The Bald Eagle: Haunts and Habits of a Wilderness Monarch. Smithsonian Institution Press, Washington. 177 pp.

Stalmaster, M. V. 1987. The Bald Eagle. Universe Books, New York. 227 pp.



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